

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A wireless headset with a wireless radio communication module, comprising:

a microphone supporting member having a microphone installed;

a connector located between the microphone supporting member and a main body of the wireless headset and coupled thereto to allow for displacement of the main body and microphone supporting member relative to one another between a folding and unfolding position;

a sensing device located in the connector for automatically determining whether the microphone supporting member and a main body are displaced to one of the folding and unfolding positions; and

a controller connected to the sensing device and the wireless radio communication module, the controller being operative, if the unfolding position is determined, to establish a link by performing an ID (identification) registration between the wireless headset and a master terminal registered in the wireless headset, by transmitting a link connection request message to the registered master terminal if the controller determines that the registered master terminal is located within a wireless communication coverage area, and by transmitting an ID (identification) message to the registered master terminal to prompt the registered master terminal to register the wireless headset, if the controller determines that the registered master terminal is not located within the wireless communication coverage area if it is determined that the microphone supporting member and the main body are displaced to the unfolding position.

2. (Previously Presented) The wireless headset as claimed in claim 1, wherein the connector attaching the microphone supporting member to the main body of the wireless headset includes a hinge structure housing the sensing device.

3. (Currently Amended) A wireless headset with a wireless radio communication module, comprising:

a microphone supporting member having a microphone installed therein and coupled to a main body of the wireless headset;

a hinge structure located between and attached to the main body and microphone supporting member so that the main body and microphone supporting member are displaceable relative to one another between a folding and unfolding position;

a sensing device located in the hinge structure for determining the unfolding position; and

a controller connected to the sensing device and the wireless radio communication module for, if the unfolding position is determined, registering an ID (identification) of the wireless headset in a counterpart terminal through the wireless radio communication module, by transmitting a link connection request message to the counterpart terminal if the controller determines that the counterpart terminal is located within a wireless communication coverage area, and by transmitting an ID message to the counterpart terminal to prompt the counterpart terminal to register the wireless headset, if the controller determines that the counterpart terminal is not located within the wireless communication coverage area if the unfolding position is determined.

4. (Previously Presented) The wireless headset as claimed in claim 3, wherein the microphone supporting member is attached to the main body of the wireless headset in the hinge structure.

5. (Currently Amended) A wireless radio communication link automatic connection method for a wireless headset comprising a wireless radio communication module, a microphone supporting member having a microphone installed therein, a hinge structure located between and coupled to the microphone supporting member and a main body of the wireless headset so that the microphone supporting member is able to be folded or unfolded relative to the main body, ~~and~~ a sensing device mounted into the hinge structure for detecting whether the microphone supporting member is folded or unfolded, the method comprising the steps of:

attempting, by the wireless headset, if the unfolded position is determined, to establish a link by performing an ID (identification) registration between the wireless headset and a master terminal, and the master terminal registering therein an ID (identification) of the wireless headset, by transmitting a link connection request message to the registered master terminal if it is determined that the registered master terminal is located within a wireless communication

coverage area, and by transmitting an ID message to the registered master terminal to prompt the registered master terminal to register the wireless headset, if it is determined that the registered master terminal is not located within the wireless communication coverage area. if it is detected that the microphone supporting member is unfolded; and
automatically establishing by the master terminal the link in response to the link connection attempt by the wireless headset through the wireless radio communication module.

6. (Currently Amended) A wireless radio communication link automatic connection method for a wireless headset comprising a wireless radio communication module, a microphone supporting member having a microphone installed therein, a hinge structure located between and coupled to the microphone supporting member and a main body of the wireless headset so that the microphone supporting member is able to be folded or unfolded relative to the main body, and a sensing device mounted to the hinge structure for sensing whether the microphone supporting member is folded or unfolded relative to the main body, the method comprising the steps of:

attempting, by the wireless headset, if the unfolded position is determined, to register an ID (identification) of the wireless headset in a counterpart terminal with a wireless radio communication module, ~~if the microphone supporting member is sensed to be unfolded;~~

transmitting, by the wireless headset, an ID message to the counterpart terminal to prompt the counterpart terminal to register the wireless headset, if it is determined that the counterpart terminal is not located within the wireless communication coverage area; and

registering, by the counterpart terminal, the ID of the wireless headset in the counterpart terminal in response to the ID ~~registration attempt by~~ message from the wireless headset.

7. (Currently Amended) A wireless radio communication link automatic connection method for a wireless headset comprising a wireless radio communication module, a microphone supporting member having a microphone installed therein, a hinge structure located between and coupled to the microphone supporting member and a main body of the wireless headset so that the microphone supporting member is able to be folded or unfolded relative to the main body,

and a sensing device mounted to the hinge structure for sensing whether the microphone supporting member is folded or unfolded, the method comprising the steps of:

transmitting a link connection request message from the wireless headset through the wireless radio communication module to a master terminal registering therein an ID (identification) of the wireless headset, if the microphone supporting member is sensed to be unfolded and the registered master terminal is determined to be located within a wireless communication coverage area;

transmitting a link connection response message from the registered master terminal within the coverage area to the wireless headset in response to the link connection request message; and

establishing a link between the wireless headset and the registered master terminal within the coverage area after the wireless headset receives the link connection response message; and

transmitting, if the registered master terminal is determined to be located outside of the wireless communication coverage area, an ID (identification) message to the registered master terminal outside the coverage area to prompt the registered master terminal outside the coverage area to register the wireless headset.

8. (Currently Amended) A wireless radio communication link automatic connection method for a wireless headset comprising a wireless radio communication module, a microphone supporting member having a microphone installed therein, a hinge structure located between and coupled to the microphone supporting member and a main body of the wireless headset so that the microphone supporting member is able to be folded or unfolded relative to the main body, and a sensing device electrically connected to and located in the hinge structure for ~~and~~ sensing whether the microphone supporting member is folded or unfolded, the method comprising the steps of:

receiving a link connection request message from a master terminal registering therein an ID (identification) of the wireless headset; and

——transmitting a link connection response message to the master terminal if the microphone supporting member is sensed to be- unfolded, and the registered master terminal is determined to be located within a wireless communication coverage area; and

transmitting an ID message to the registered master terminal to prompt the registered master terminal to register the wireless headset, if the controller determines that the registered master terminal is not located within the wireless communication coverage area.

9. (Currently Amended) A wireless radio communication link automatic connection method for a wireless headset comprising a wireless radio communication module, a microphone supporting member having a microphone installed therein, a hinge structure located between and coupled to the microphone supporting member and a main body of the wireless headset so that the microphone supporting member is able to be folded or unfolded relative to the main body, and a sensing device mounted to the hinge structure for sensing whether the microphone supporting member is folded or unfolded, the method comprising the steps of:

transmitting an ID (identification) message of the wireless headset from the wireless headset to a counterpart wireless radio communication ~~wireless communication~~ terminal if the microphone supporting member is sensed to be unfolded and the counterpart wireless radio communication terminal is determined to be located within a wireless communication coverage area; and

registering, by the counterpart wireless radio communication ~~wireless communication~~ terminal located within the coverage area, an ID of the wireless headset in the counterpart wireless radio communication ~~wireless communication~~ terminal located within the coverage area in response to the ID message and transmitting an ID registration completion message to the wireless headset; and

transmitting, if the counterpart wireless radio communication terminal is determined to be located outside of the wireless communication coverage area, an ID message to the counterpart wireless radio communication terminal outside of the coverage area to prompt the counterpart wireless radio communication terminal outside of the coverage area to register the wireless headset.

10. (Currently Amended) The method as claimed in claim 9, further comprising the steps of: transmitting, if the counterpart wireless radio communication terminal is determined to be located within a wireless communication coverage area, a link connection request message from

the wireless headset to the counterpart wireless radio communication wireless communication terminal; and

connecting a link between the wireless headset and the counterpart wireless radio communication wireless communication terminal by transmitting a link connection response message from the counterpart wireless radio communication wireless communication terminal to the wireless headset in response to the link connection request message.

11. (Currently Amended) A wireless headset for local wireless master/slave communication, comprising:

a microphone supporting member having a microphone installed therein and;

a hinge structure located between and attached to the main body and microphone supporting member so that the main body and microphone supporting member are displaceable relative to one another between a folding and unfolding position;

a sensing device mounted to the hinge structure for determining whether the microphone supporting member and the main body are in the folded or unfolded positions; and

a controller connected to the sensing device, for connecting, if the unfolded position is determined, a link by performing an ID (identification) registration between the wireless headset and a master terminal registered in the wireless headset if it is determined that the microphone supporting member and the main body are in the unfolded position, by transmitting a link connection request message to the registered master terminal if the controller determines that the registered master terminal is located within a wireless communication coverage area, and by transmitting an ID (identification) message to the registered master terminal to prompt the registered master terminal to register the wireless headset, if the controller determines that the registered master terminal is not located within the wireless communication coverage area.